

Appl. No. 09/753,728
Paper dated June 21, 2005
Reply to Office Action dated March 25, 2005

Amendments to the Drawings:

The attached 1 sheet(s) of drawings reflect changes to Figure(s) 65 and replace the original sheet(s) of these Figure(s).

Attachments: Replacement Sheet(s)

Annotated Sheet(s) Showing Changes

REMARKS

Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

A. **Status of the Claims and Explanation of Amendments**

At the outset, Applicants have enclosed herewith a copy of front pages of the priority document along with a stamped return receipt postcard as requested on page 2 of the Office Action. This document had previously been submitted to the United States Patent & Trademark Office on March 23, 2001. Acknowledgement of the receipt of these papers is respectfully requested.

By this paper the abstract has been amended. These amendments are believed to resolve the objections of the March 25, 2005 Office Action at page 3. Applicant notes, however, that the abstract has been amended to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure and to aid indexing, classifying and searching. 37 C.F.R. § 1.72(b); MPEP § 606.01. These amendments are *not* intended to narrow, limit, alter or otherwise characterize what Applicants' regard as their invention. It is, of course, the claims and not the abstract that defines the invention being claimed.

In addition, by this paper Figure 65 is amended. The label corresponding to reference numeral 6503 is changed from "Division Condition Output" to Division Condition Input." This change is consistent with both the figure and the accompanying text.

Claims 1-89 are pending. Claims 5, 19, 27, 41 and 49-87 were withdrawn from consideration. Claim 48 was objected to because of a misspelling. That has been corrected by this paper. Withdrawal of the objection is requested.

In addition, the following amendments have been made:

<u>Claims</u>	<u>Original Term</u>	<u>New Term</u>
1-4, 6-12, 14, 20, 23-26, 28-34, 36, 42, 45, 55-56, 68, 72-73, 85, and 88-89	“work standard”	“work unit”
1, 4, 8, 23, 26 and 30	“composition target”	“work standards as the composition targets”
1, 3-5, 23, 25-27, and 88-89	“composition conditions”	“user-selected manufacturing conditions
6, and 28	“the plurality of work standards as the composition targets”	“one or more work units”
13-15, 35-37	“composition result”	“assignment result”
16, 17, 38 and 39	“adding an arbitrary station to the station”	“adding a new station”
18, 50	“a user who does composition”	“a user of the work assignment system”
20, 42	“a width”	“a height”
45-48	“works”	“work standards”

In addition, claim 22 has been amended into independent form to include the claim elements of claim 1, from which it previously had depended. Also, claim 44 was amended to clarify that it is directed to a computer readable medium having program codes stored thereon. None of these amendments is made for any substantial reason related to patentability (§§102 or 103).

Claims 23-26, 28-40, 42-44 were rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. [3/25/05 Office Action at pp. 3-4]. Claims 1-4, 6-18, 20-26, 28-40, 42-48, 88 and 80 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. [3/25/05 Office Action at pp. 4-7]. Claims 1-4, 6-18, 20-26, 28-40, 42-48, 88 and 89 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. [3/25/05 Office Action at pp. 7-11].

B. Claims 23-26, 28-40, 42 and 43 are Directed to Patentable Subject Matter

The Office Action asserts that the subject matter of claims 23-26, 28-40 and 42-43, although reciting a useful, concrete and tangible result, are not patentable because “they are not limited to the technological arts.” [3/25/05 Office Action at p. 4]. This rejection of claims 23-26, 28-40, 42 and 43 is respectfully traversed, because the claimed inventions are directed to statutory subject matter pursuant to 35 U.S.C. § 101, as interpreted by the Federal Circuit, and also in accordance with the PTO’s guidelines as set forth in the MPEP (see, e.g., MPEP §2106).

Applicants’ independent claim 23 recites:

23. A work assignment method of assigning and composing a work formed from a plurality of work units to a plurality of stations, comprising:
 - a display step of displaying names of the plurality of work units as work standards as the composition targets;
 - a condition input step of inputting a user-selected manufacturing condition;
 - an assignment step of dividing the plurality of work units in accordance with the user-selected manufacturing condition and assigning one group of the divided work units to a station; and
 - an output step of outputting an assignment result of the work units of each station to a work assignment file as a composition plan.

According to this method, a work may be composed at a plurality of stations.

Names of a plurality of work units related to the work being composed are displayed. Then a manufacturing condition is input by a user. Finally, the work units are divided and assigned in accordance with the user-selected manufacturing condition. Thus, the claim relates to the manufacturing arts and provides a useful result – i.e., work assignments.

As explained by the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) “mathematical algorithms” are unpatentable *only if* they are “merely abstract ideas constituting disembodied concepts or truths that are not ‘useful[]’ [and thus] to be patentable an algorithm must be applied in a ‘useful’ way.” *Id.* at 1373. Said another way, statutory subject matter includes any process that is limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See *In re Alappat*, 33 F.3d 1526, 1543 (Fed. Cir. 1994).

This requirement for “practical application” has been subsequently interpreted to include producing a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358 (Fed. Cir. 1999). Thus, a method or process claim that provides a concrete, tangible and useful result, necessarily has a practical application and is statutory subject matter.

Here, the Office Action expressly conceded that “claims 23-26, 28-40, 42 and 43 recite a useful, concrete, and tangible result.” [3/25/05 Office Action at p. 4]. Accordingly, Applicants respectfully urge withdrawal of the Section 101 rejection of claims 23-26, 28-40, 42 and 43, because they are directed to statutory subject matter.

C. *The Section 112 Rejections of Claims 1-4, 6-18, 20-26,
28-40, 42-48, 88 and 89*

The Office Action asserts that the subject matter of claims 1-4, 6-18, 20-26, 28-40, 42-48, 88 and 89 lacks proper written description in the specification. [3/25/05 Office Action at pp. 4-7]. This rejection is respectfully traversed, since each of these claims is an original claim, and since claims are self-supporting for written description purposes. See, e.g., *In re Koller*, 613 F.2d 819, 823, 204 USPQ 702 (CCPA 1980) (“[O]riginal claims constitute their own description.”); *In re Smith*, 481 F.2d 910, 914, 178 USPQ 620 (CCPA 1973) (“Where the claim is an original claim, the underlying concept of insuring disclosure as of the filing date is satisfied, and the description requirement has likewise been held to be satisfied.”); see also MPEP § 2163.

Nonetheless, as described above, the specific criticisms set forth in the office action have been addressed. For example, the phrases “work standards,” “composition targets” and “composition condition” were found to be confusing. “Work standards” was changed to “work units.” This is consistent with the originally filed specification, which states for example, “A ‘work standard’ represents a certain work unit in the manufacturing process.” [Specification at pp. 35-36 and Figure 2].

The phrase “the plurality of work standards as composition targets” was changed to “the plurality of work units as work standards as composition targets.” This change is intended to clarify that the composition targets are not limited to the manhour data. As explained in the specification, names of the plurality of work standards as composition targets are displayed, for example in window 37706. [Specification at p. 3]. This window is shown in Figure 105. As seen in this figure, the data displayed may include a “work standard no.,” “work name,” “WF manhours,” “manual manhours,” “machine manhours,” “component name,” “node

no." and "previous." Thus, the composition targets are not limited to a measure of manhours or efficiency.

"Composition conditions" was changed to "user-selected manufacturing condition." As noted by the Examiner, these composition conditions may specify that the work assignments are divided according to an average value of manhours necessary to execute all the work standards in a given station. However, Applicants' invention is not so limited as can be seen by a review of the originally filed specification. In addition, complex configurations other than the average value are documents in the specification. For example, there may be manual assignment as shown in Figure 69 and the accompanying text. There also may be parallel assignment as shown in Figure 70 and the accompanying text. There further may be another assignment procedure as shown in Figures 95 and 96 and the accompanying text. The reference to specific figures is exemplary, and not intended to be limited on the claims.

For at least similar reasons, Applicants respectfully traverse the indefiniteness rejection of claims 1-4, 6-18, 20-26, 28-40, 42-48, 88 and 89 are indefinite. [3/25/05 Office Action at pp. 7-11].

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CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1232-4672.

Respectfully submitted,
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Dated: June 21, 2005

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FIG. 65

